

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022041**Date Inspected:** 19-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Shi Lei, An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 14, OBG 14W (NWIT # 08576)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SA8509-001-037, 038

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020E-026, 027 [Edge Plate (EP) 30303E to Floor Beam (FB) 3344A, Fillet weld at Panel Point (PP) 128.3). The welder is identified as 067942 and

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was observed welding in the 4F position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020E-117, 118 [I rib stiffener RS3496C on Edge Plate (EP) 30303E to Floor Beam (FB) 3344A, Fillet weld at Panel Point (PP) 128.3]. The welder is identified as 067942 and was observed welding in the 4F position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AJ-328 [I-rib stiffener (RS3516K) on Bottom Plate (BP) 3089A to Floor Beam (FB) 3330A, complete joint penetration (CJP) weld at PP127.5]. The welder is identified as 045175 and was observed welding in 3G position. ZPMC Quality Control (QC) was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with welding procedure specification (WPS): B-T-2233-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AJ-286 [I-rib stiffener (RS3517N) to Bottom Plate (BP) 3088A, complete joint penetration (CJP) weld in between panel points PP127~127.5]. The welder is identified as 066398 and was observed welding in 2G position. ZPMC Quality Control (QC) was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with welding procedure specification (WPS): B-P-2212-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AJ-290 [I-rib stiffener (RS3517P) to Bottom Plate (BP) 3089A/3090A, complete joint penetration (CJP) weld in between panel point PP127.5~128]. The welder is identified as 037779 and was observed welding in 2G position. ZPMC Quality Control (QC) was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with welding procedure specification (WPS): B-P-2212-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020B-054 [Floor Beam (FB) 3445A to Side Plate (SP) 3139A, complete joint penetration (CJP) weld at PP128.7]. The welder is identified as 067949 and was observed welding in 3G position. ZPMC Quality Control (QC) was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with welding procedure specification (WPS): B-T-2233-ESAB.

During random in process inspection this QA inspector observed that the root gap between I-rib stiffeners RS3496C/RS3496D on Edge Plate (EP) 3030E and Floor Beam (FB) 3344A at Panel Point (PP) 128.3 observed as 13mm and 14mm respectively. As per approved shop drawings these weld joints are shown as fillet weld. This issue has been discussed with ZPMC CWI Mr. An Qing Xiang and CT Lead QA. Mr. An Qing Xiang informed this QA that ZPMC will change these weld joints from fillet to CJP with approval of engineer because of more root gap. See attached photographs for more details.

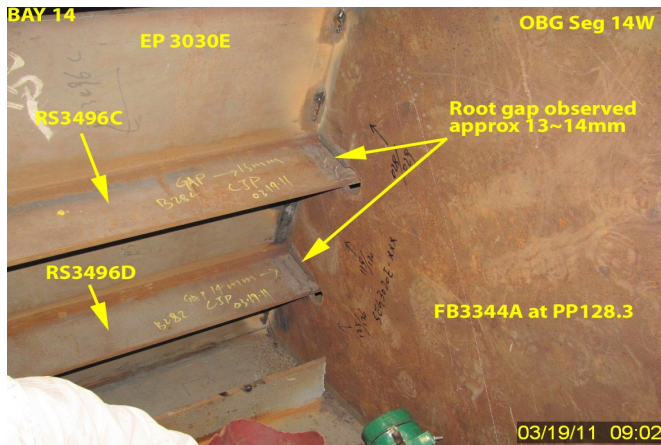
During random in process inspection this QA inspector observed that ZPMC personnel were performing fit up of top anchorage plate AP3016A to vertical shear plate SA3451A. The welder is identified as 067765 and was observed welding in 4G position. ZPMC Quality Control (QC) was identified as Mr. Zhu Lin. See attached photographs for more details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

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documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer